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DATE	3-30-07
SB 43	

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03/30/07

Natural Resource Committee

The information presented here is focused on our request that the law and health agency rules, in dealing with water pH be changed for Flow Through hot spring pools. I have presented a wide range of information representing the opinions of a number of individuals and agencies that support this request.

In reference to the administrative rules of Montana Title 37, Chapter 111, Subchapter 11, 37.111.1156 Hot Springs Pools and Flow-Through Hot Springs Pools.

(1) Any hot springs pool other than flow-through hot springs pool must comply with all other provisions of this subchapter, with the exception that the pH of pool water must be maintained at no less than 7.2 and no greater than 8.5.

We would like to change the upper limit of this regulation from 8.5 to 9.4. This change would allow Granite Creek Hot Springs to open to the public as a natural Hot Springs without having to alter our water to meet a lower pH.

In the same administrative rules, 37.111.1151 Bacteriological and Chemical Quality, which are rules written for swimming pools and spas, non geothermal, rule number (8) Swimming pool and spa shall be maintained at a pH of not less than 7.2 and not over 7.8.

There is a difference of pH written into these rules. In a controlled water situation for swimming pools and spas there is every reason to maintain pH at the state required levels. Geothermal water, however, is extremely complex in a mixture of minerals that make each spring a very unique bathing experience. We would suggest that when a spring such as ours, that has been open since the late 1800's, to isolate pH as a health risk in skin irritation and bacterial infection, does not account for the numbers of people that have been here and enjoyed these unique waters.

Our intention in reopening Granite Creek Hot Springs to the public is to offer a clean and healthy hot spring experience that is presented in a natural a way as possible. To that end we fully support and want to comply with any standard that supports public health and safety.

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Information concerning proposed rule change for pH in flow through hot spring pools.

pH describes the relative concentration of hydrogen ions on a scale of 0-14. On this scale 7 is neutral, below 7 is acidic and above 7 is alkaline. The numbers are logarithmic on the power of 10. This means that there is significant change in concentration compared to a linear progression.

I have some detailed information concerning health issues and information from other State agencies that have provided me with their procedures for dealing with pH. If there is any need for more information I can be contacted at the above address.

In reference to my information the following gives a brief outline.

1. The pH values of a few common things: Blood......7.0

Orange juice 5.0 this makes OJ/100x more

Acidic than blood

Ocean Water 8.2-8.5

Soap 9.0-11

2. I have agreement with the Montana Health and Human Services director Jan Stetzer to change the current pH regulation from 8.5 to 9.4. jstetzer@mt.gov 444-5309

Milk of Magnesia 10.4

- 3. Richard Horne, Idaho Public Health official who was the lead person in writing the current regulations for Idaho hot spring policy. 208-522-0310 www2.state.id.us/phd7
- 4. The American Water Works Association in Denver has provided me with studies that show how pH of 9.0 and above works in bacterial die-off. This is not all bacteria but is interesting to note as a positive impact for bathing. The contact person is Bill Lauer 800-926-7337. www.awwa.org
- 5. CDC (Center for Disease Control) RWI's (recreational water illnesses) This is a fact sheet of procedures for a healthy swimming experience. www.cdc.gov/index.htm
- 6. Montana State University, Bozeman, Biofilm Engineering. Mark Burr, 406-994-1816 Mark has provided information on studies called Alka-Therm technology. This uses high pH and high temperature to kill E-coli and Salmonella.

7. Sheri Iverson, 406-736-5342. Sheri is the daughter of the past owner, Bill Wiley (deceased). I have a personal letter from her saying that they had no incidents of bacterial infection or abnormal skin issues as a result of people bathing in this water.

The Wiley estate had ownership of Granite Creek Hot Springs from 1985-2005

- 8. Dr. Gil Yosipovitch and Dr. Judy Hu from Wake Forest University in a published article in Skin and Aging Journal. www.Skinandaging.com/article/1358.

 This is good information on the acid mantel that the outer layer of human skin maintains in ideal conditions. Any bathing will alter this balance and is therefore harmful. The emphasis of their work is to promote low pH soaps and lotions to restore a more normal pH to the skin.
- 9. The American Academy of Dermatology, 866-503-7546 www.aad.org This is a good source of information on skin problem diagnosis and treatment options. In there extensive listing of skin conditions there is nothing mentioned about the impacts of high pH.
- 10. Dr. Gene Gudmundson, Spa Hot Springs, White Sulphur Springs, Montana, 547-3366 spahotsprings.com. Past head of the Montana hot springs association, see letter in this reference material.

Historical Perspective

There is no question that Granite Creek and hot springs in general were essential to the Native Americans way of life. We as "new owners" have the responsibility to be good stewards of truly unique resources. The first white man documentation of these springs is from the Lewis and Clarke expedition in 1805. I think it would be safe to say they were glad they were here and I am sure used them with pleasure.

The first courthouse records show the sale of the property by W. Harris in 1885 to Fred Lembke. The resort had become a favorite vacationing spot by that early date although travel to and from the Springs was a laborious journey over a rough, narrow road that forded the creek many times. Hotels, cabins, dining facilities, a store and a saloon had been build for guests convenience. An advertisement in the Missoulian dated August 16, 1888 states that these springs are known throughout the Northwest for their health giving qualities. They are 40 miles from Missoula in a beautiful country, plenty of game and fishing. Board and room, and bath, eleven dollars per week. Fare by coach to and from the Springs, five dollars. Wm. Boyle, proprietor. In 1903 Paul Gerber bought the property and after a fire of that year built a new hotel. The plunge was improved and dressing rooms were built. There were two different bathing facilities, one of warm water for swimming and a smaller one in which water was several degrees hotter, affording relief to many a patient with rheumatism or a similar ailment. The Gerber family was able to turn this spring into a very successful business. The Gerber estate included 383 acres and in the deed there is mention of the thermal hot springs, thus making this spring one of the few deeded hot springs in the United States. All the above information was taken from "Lolo Creek Reflections" published by Stoneydale Press.

The next piece of history that has been a personal pleasure to experience is some time with Bud Moore. Bud was here, at Granite Creek Hot Springs in Sept 2006 and was a treasure of information about his life as a trapper here in the 1930's. He related fond memories of walking to these springs on snow shoes as the part of his more than 80 mile trap line. Granite Creek hot Springs known as Lolo Hot Springs at that time was at the end of the road and an important part of his life and many others both for outfitting supplies and a good hot soak. Bud has made a significant contribution to this area in his work as forest supervisor and his published work "The Lochsa Story" land ethics in the Bitterroot Mountains.

I have been living at Granite Creek Hot Spring since November 2005. In that time I have talked with dozens of people from Missoula that have fond memories of coming here some 25 or 30 years ago when this was last open to the public. Without exception they are looking forward to the opening of these hot springs.

In all this history mentioned above the geothermal water that people have experienced here has never been altered or changed in any way.

Spa Hot Springs Motel 202 W Main St White Sulphur Springs, MT 59645 (406) 547-3366

Spahotsprings.com

12/01/06

Spa Hot Springs is owned and operated by Dr. Gene Gudmundson. He was the past head of the Montana hot springs owners association who helped formulate the rules which we currently have that regulate all the commercial hot springs in the state. At the time the regulations were drafted the intention of the owners was to include all natural hot springs. The owners in their facilities represent a vast difference in water chemistry, temperature and pH but the intention was to be inclusive. This spring with a pH of 9.4 was not represented as it was not open to the public at that time.

Dr. Gudmundson has been actively involved with Montana hot springs for the past 18 years both for recreational and therapeutic reasons. It has been his experience in all that time that there has never been an issue related to pH levels in abnormal skin irritations or irritations to soft tissue as in nose ear mouth & eyes. It has also been his experience that when hot springs meet the flow through requirements set by the state that there has not an issue with bacterial Infections related to pH.

This account is a stating of a conversation Dr. Gudmunson and I have had recently. He is very much ready to give his own signed statement to verify the above account and he his willing to speak to the legislative meeting in 2007 to offer his experience and expertise.